

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

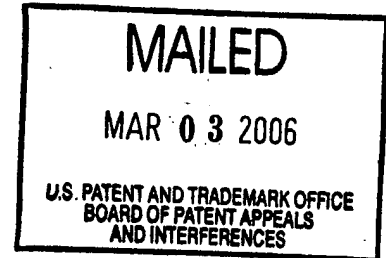
UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte SCOTT A. CLUFF AND RAYMOND W. THORN

Appeal No. 2006-0570
Application No. 09/706,960

ON BRIEF



Before KRASS, RUGGIERO, and DIXON, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-11, 14, 20, 28, and 30-33.

The invention is directed to a method and system of recovering a system that has experienced a fault. A backup device is included for enabling access to a network through an interface in response to the fault. A main operational portion controls operation of the system under normal conditions, but if a fault occurs, the backup device can be selected to take over control of the system so that data can be retrieved from a backup storage to recover the system. The backup device includes software and/or hardware components to enable the system to access the network even though the main operational portion may not be functioning properly.

Representative independent claim 1 is reproduced as follows:

1. A system comprising:

an interface to a network;

a first operational element to perform one or more tasks in the system;

a storage element containing a flag to indicate if a fault has occurred with the first operational element; and

a backup device to enable access of the network through the interface in response to the flag indicating failure of the first operational element.

The examiner relies on the following references:

5713024	HALLADAY	1-1998
5627964	REYNOLDS ET AL.	5-1997
6381694	YEN	4-2002
4972316	DIXON ET AL.	11-1990

Stevens, "Introduction", TCP/IP Illustrated, Volume 1: The Protocols, Addison-Wesley, 1994, pg. 1

Claims 1-11, 14, 20, 28, and 30-33 stand rejected under 35 U.S.C. §103. As evidence of obviousness, the examiner offers Halladay and Reynolds with regard to claims 1, 2, 9-11, 30, and 31, adding Stevens with regard to claims 3-7 and 32, but adding Yen with regard to claim 8. With regard to claims 14 and 20, the examiner offers Halladay and Stevens. The examiner offers Halladay, Dixon and Reynolds with regard to claims 28 and 33.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

OPINION

With regard to claims 1, 2, 9-11, 30, and 31, the examiner points out that Halladay discloses the claimed subject matter but for a storage element containing a flag to indicate if a fault has occurred with the first operational element. However, the examiner cites Reynolds for the proposition that it was well known to use a flag for indicating a fault so as to initiate a recovery program, citing column 6, lines 20 of Reynolds. According to the

examiner, Reynolds discloses a “special flag” to determine whether a fail-safe mode is to be established in response to a previous failure.

The examiner concludes that it would have been obvious to use a flag to initiate recovery because Halladay’s abstract makes it clear that automation is important and Reynolds discloses that it is desirable to automate the boot disk process via automation, citing column 2, lines 1-18.

Appellants contend that the combination is improper as there is no motivation to make the combination. Appellants base this conclusion on Halladay’s disclosure of the use of a floppy disk for “cold” booting a computer in response to a memory failure, finding that it is the user who must initiate the cold boot process. Therefore, contend appellants, there is no need to use a special flag since the loading of the floppy disk itself is the act for starting the restoring process. Moreover, argue appellants, Reynolds is directed to entering a fail-safe mode based on the special flag and is not concerned with restoring data from a backup device in response to this special flag. Accordingly, appellants conclude that there would have been no reason to employ the special flag of Reynolds in the device of Halladay to start a backup process in response to that flag indicating a fault has occurred with an operational element.

Still further, appellants assert that even if the combination was made, the instant claimed subject matter would not result since the flag recited in claim 1 must indicate if a fault has occurred with the first operational element *and* a backup device must enable access to a network through an interface in response to the flag indicating failure of the first operational element.

The examiner counters with an explanation of motivation to combine as follows (answer-page 15): Halladay makes it clear that automation is important and specifically discloses a boot disk as the means by which recovery is initiated; and Reynolds discloses in the background section that boot disks are used to start up an “old-style character-based operating system” (column 1, line 57). The examiner also asserts that Reynolds discloses in the summary of the invention portion that the invention overcomes these limitations of known systems by allowing the user to repair a GUI-based operating system by providing automatic failure recovery through a special fail-safe mode (column 2, line 14). According to the examiner, this provides “two-way motivation to combine Halladay in view of Reynolds” (answer-page 15).

Moreover, the examiner explains, at pages 15-16 of the answer, a flag is merely a bit, or a Boolean indicator, which, in and of itself, has no inherent properties except for being a 0 or a 1. Therefore, in accordance with the examiner’s thinking, the flag itself

does not enable access to the network but, rather, it is whatever reads the bit which initiates activity. Since Halladay intended an automatic system and boot disks were common at that time, Halladay used a boot disk, relying on a user to initiate recovery. However, continues the examiner, this is not a necessary step and, as indicated by Reynolds, can be automated by the use of a failure detector that sets a flag, the flag being detected on subsequent reboot, initiating recovery procedures.

We have carefully considered the evidence before us, including the disclosures of the applied references, as well as the arguments of appellants and the examiner and we conclude therefrom that the examiner has not established a prima facie case of obviousness with regard to the subject matter of instant claims 1, 2, 9-11, 30, and 31.

While we appreciate the examiner's creativeness in finding a common element between the references, viz, a discussion of boot disks, it appears that Reynolds teaches away from using the "well-worn floppy disk that contains an old-style character-based operating system" (column 1, lines 58-59) in favor of running a GUI-based program which is not possible with the character-based operating system (column 1, line 67-column 2, line 2). Instead, Reynolds permits a user to repair a GUI-based operating system from within the very same operating system by providing automatic failure recovery through a special "fail-safe" mode of the GUI-based operating system (column 2, lines 14-18). The special flag employed by Reynolds is for indicating whether fail-safe mode is to be established in response to a previous failure of an attempt to establish normal mode. Also, the flag can be stored (column 6, lines 29-32). While Reynolds does appear to be interested in failure recovery, it appears that the special flag disclosed therein is used only to enter a fail-safe mode. The flag is not used to indicate if a fault has occurred within a first operational element, or that a backup device enables access to a network in response to that flag indicating a failure of the first operational element, as set forth in instant claim 1.

Therefore, to the extent Halladay and Reynolds can be combined, the combination would not result in the claimed subject matter as neither reference discloses a flag, as required by claim 1 because, by the examiner's own admission, Halladay teaches no such flag at all, and Reynolds's flag is not used to indicate if a fault has occurred within a first operational element, or that a backup device enables access to a network in response to that flag indicating a failure of the first operational element.

Moreover, since Halladay appears to depend solely on a floppy disk for instituting a fault recovery, and Halladay teaches away from the use of such a disk, or at least does not teach that the special flag may be used with such a disk, the artisan, having knowledge of Reynolds' special flag and its use in fail-safe functionality from a computer

system having a GUI, would not have been led to use any such flag in the fault recovery system of Halladay.

Accordingly, we will not sustain the rejection of claims 1, 2, 9-11, 30, and 31 under 35 U.S.C. §103.

We also will not sustain the rejection of claims 3-7 and 32 under 35 U.S.C. §103 because the examiner brings in Stevens for the teaching of an interface comprising a network stack having an IP layer, but Stevens does not provide for the deficiency of Halladay and Reynolds in their failure to provide for the claimed flag and the backup device enabling access to the network in response to that flag indicating a failure of a first operational element.

Similarly, since Yen also does not provide for this deficiency, we will not sustain the rejection of claim 8 under 35 U.S.C. §103.

With regard to independent claims 14 and 20, the examiner relies on the combination of Halladay and Stevens to reject these claims under 35 U.S.C. §103.

The examiner contends that Halladay discloses the claimed subject matter but for the network for communication and retrieving, via a browser, using a network stack including an IP layer. The examiner turns to Stevens to show that the use of such an IP layer was well known, and concludes that the subject matter of claims 14 and 20 would have been obvious, within the meaning of 35 U.S.C. §103.

Appellants' position is that claims 14 and 20 both require a browser. Claim 14 requires that the backup software routine comprises a browser, where the browser is executed to access the network through a network stack including an IP layer to retrieve data comprising an image containing user data in an operating system. Claim 20 recites the loading of a browser from a backup storage device to enable network communication through a network stack including an IP layer for retrieving an image to recover a system, where the image comprises user data in an operating system.

Appellants contend that there is no teaching in either Halladay or Stevens of a browser that is executed to load data containing an image having user data in an operating system. Appellants note that "browser" refers to a "Web browser."

The examiner contends that Halladay discloses that backup data is accessible via a network, citing column 3, line 44 et seq.; that a backup software routine is loaded from

a backup device, citing column 7, line 57 et seq.; and that the backup software routine comprises a browser, wherein the browser is executed to access the network to retrieve data, citing column 5, line 3 et seq. However, we have reviewed the cited portions of Halladay and find no disclosure of a browser, as claimed. Instead, we find a disclosure of a cold boot data backup system that interposes a data file monitor between a file system and an application program, an application program activation process native to the computer system,, and an application program resident on the computer system to create a cold boot floppy disk which is used to cold boot the computer system in the event the memory must be restored.

The examiner contends that a "browser" is "simply something used for browsing" (answer-page 16), but it is clear to us, from the claim language and the disclosure in the instant specification, at page 4, line 20, that the backup routine must be a "browser" capable of executing on a processor in each node "to gain access to the network 12." Thus, even if "browser is interpreted as meaning something other than a "Web browser," it is clear that it is software which permits access to some network. The examiner has not shown that there is any such "browser" in Halladay. The examiner points to column 5, line 3 et seq. in Halladay for a browser, but we have reviewed that portion of Halladay and find no such suggestion of any browser, even under a broad interpretation of that term.

Accordingly, we will not sustain the rejection of claims 14 and 20 under 35 U.S.C. §103.

Turning, finally, to the rejection of independent claim 28, and of dependent claim 33 under 35 U.S.C. §103, the examiner relies on Halladay, Dixon, and Reynolds, citing Dixon for formatting comprising scanning a storage device to determine portions of the storage device that are defective, and storing the image in portions of the storage device other than the portions that are defective, and mapping out defective portions of a disk during formatting.

Whether or not Dixon discloses what the examiner alleges, Dixon clearly does not provide for the deficiencies noted supra, anent the "flag" with regard to Halliday and Reynolds. Since claim 28 also includes a recitation of this flag set in response to a fault, the flag indicating that the system has experienced a fault, we will not sustain the rejection of claims 28 ad 33 under 35 U.S.C. §103.

Since we have not sustained any of the rejections, the examiner's decision rejecting claims 1-11, 14, 20, 28, and 30-33 under 35 U.S.C. §103 is reversed.

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Joseph F. Rugg
JOSEPH F. RUGG

John L. [Signature]

EK/taw

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